

1 STATE OF VERMONT  
2 PUBLIC SERVICE BOARD  
3

4 Docket No. 7032  
5

6 Petitions of Vermont Electric Power Company, Inc.  
7 ("VELCO"), Green Mountain Power Corporation  
8 ("GMP"), and the Town of Stowe Electric  
9 Department ("Stowe") and for a certificate of public  
10 good, pursuant to 30 V.S.A. Section 248,  
11 authorizing VELCO to upgrade a substation in  
12 Moretown, Vermont; construct .3 miles of side by  
13 side single pole tap; construct a switching station in  
14 Duxbury, Vermont; construct 9.4 miles of 115 kV  
15 transmission line; upgrade an existing GMP 34.5  
16 kV subtransmission line; construct a substation in  
17 Stowe, Vermont; and for Stowe to construct 1.05  
18 miles of 34.5 kV subtransmission line in Stowe,  
19 Vermont.  
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22 VERMONT AGENCY OF NATURAL RESOURCES' PREFILED TESTIMONY OF  
23 SHANNON MORRISON  
24

25 **Q1. Please state your name, business address and occupation.**

26 A1. Shannon L. Morrison, District Wetland Ecologist with the Vermont Agency of  
27 Natural Resources, 103 South Main Street, Bldg 10 North, Waterbury, Vermont  
28 05671.

29 **Q2. Please describe your educational background and relevant work experience.**

30 A2. I have a Master of Science Degree in Botany from the University of Vermont,  
31 where my research focused on nuisance species and community ecology. I have  
32 been employed with the Water Quality Division for five years. My resume is  
33 included as an exhibit (Exhibit ANR SM-1).

34 **Q3. What is the purpose of your testimony in this proceeding?**

1 A3. The purpose of my testimony is to provide the Agency's position on the proposed  
2 Project with respect to impacts on wetlands under the environmental criterion  
3 reviewed by the Public Service Board pursuant to 30 V.S.A. § 248(b)(5).

4 **Q4. Are you familiar with the proposed Project?**

5 A4. I am familiar with the Project and have reviewed VELCO's prefiled testimony  
6 regarding wetlands. Due to the timing of this Project, I have not yet visited the  
7 wetland sites to be impacted by the Project. Site visits for this Project will start in  
8 the spring of this year.

9 **Q5. What permits will VELCO need to make application for in order to**  
10 **construct the Project and why each will be required?**

11 A5. VELCO will need a Conditional Use Determination (CUD) from the Agency for  
12 impacts to Class II wetlands, a U.S. Army Corps of Engineers  
13 § 404 permit, and a Vermont § 401 Water Quality Certificate. A CUD is required  
14 from the Agency because there will be impacts to the functions and values of  
15 Class II wetlands. A § 404 permit from the Corps is required because there will be  
16 over 3,000 square feet of wetland fill from the proposed Project. The Agency has  
17 not received the total acreage of fill as a result of the Project, but if the fill is  
18 greater than one acre, VELCO will be required to obtain an individual § 404  
19 permit from the Corps. The Corp can also require an individual permit at its own  
20 discretion. For an applicant to apply for a § 404, they must first obtain a §401  
21 Water Quality Certificate from the Agency.

22 **Q6. Will the Agency also evaluate the impact of the Project on Class III wetlands**  
23 **even though a CUD is not required for those impacts?**

1 A6. Yes, the Agency will consider impacts to Class III wetlands as part of the Water  
2 Quality Certificate review, and also as they pertain to other criteria such as water  
3 quality protection; habitat for rare, threatened, and endangered species; rare and  
4 irreplaceable natural areas, and necessary wildlife habitat.

5 **Q7. Can you describe the general scope of impacts expected from the Project?**

6 A7. Yes. Impacts can be divided into temporary impacts and permanent impacts.:  
7 Temporary impacts are generally associated with the construction phase of the  
8 Project, while permanent impacts result from construction and on-going  
9 management practices. Impacts will result from temporary fill for access roads,  
10 temporary culvert placements, ground disturbance around proposed substation  
11 expansions, and other similar activities. Permanent impacts include wetland  
12 filling for substation expansion, permanent culvert installation to cross water  
13 courses, excavation and fills for pole placement, and clearing of vegetation,  
14 primarily overstory trees (trees that will have to be cleared to create right of way),  
15 for the power line right-of-way.

16 **Q8. Have all the wetlands been delineated and field inspected, and if not, is it**  
17 **necessary to have this completed by VELCO?**

18 A8. According to Art Gilman's testimony, the wetlands on the project tract have been  
19 delineated. However, these delineations have not been verified by ANR staff.  
20 Site review is required in order for a CUD application to be considered complete.

21 **Q9. Can you evaluate the impacts of this Project at this time?**

22 A9. The Agency has a reasonable understanding of the Project's impact on wetlands  
23 because we are familiar with the proposed Project route and proposed substation

1       expansions. However the Agency is not yet in a position to evaluate those  
2       impacts, as VELCO has not yet quantified them. The Agency expects that  
3       VELCO's application for the above-described permits will contain the necessary  
4       level of detail to evaluate the impacts to Class II wetlands from pole placement,  
5       rights-of-way clearing, and substation expansion, including how access for the  
6       construction of the Project will occur in and around wetland areas.

7

8       The final design must reflect an effort by the applicants to avoid and minimize  
9       wetland impacts where possible. Opportunities for avoidance and minimization  
10      include winter construction for some components of the Project; strategic pole  
11      placement and lengthened line spans over sensitive Class Two and Class Three  
12      wetlands; and design and placement of the Stowe Substation, currently located in  
13      a Class Two wetland. During project review, ANR will decide whether VELCO  
14      will need to mitigate wetland impacts by creating or restoring wetlands that will  
15      serve as appropriate compensation for the permanent loss of wetlands, and the  
16      conversion of forested wetlands to shrub and emergent wetlands.

17   **Q11. Are there any areas of particular concerns that may be impacts by the**  
18   **Project?**

19   A11. Yes. The line is proposed to go through a fen in Stowe. VELCO has it marked as  
20   G4-69. Fens are rare wetland natural community types. They are significant  
21   because they support hyrdophytic vegetation. Fens are sensitive because of their  
22   pH and their sensitivity to stormwater run-off.

23

1 During construction it is imperative that no poles be placed in the vicinity of the  
2 wetland or in any location that would impede the groundwater that supplies the  
3 fen and that there be no vehicular or foot access across the fen. Although  
4 removing large woody species would help maintain the open nature of the fen, the  
5 peat soils require that this be done in winter with frozen ground. The Agency  
6 believes that no large vehicles, tracked or otherwise, should cross the fen under  
7 any condition and that pesticides not be used in proximity of the fen. What the  
8 buffer should be depends on the grade of the terrain in the fen – the steeper the  
9 slope the larger the buffer.

10

11 I should also note that the Stowe substation expansion will be impacting a  
12 previously disturbed wetland. In this situation, as in other situations where there  
13 are previous impacts to a wetland, the Vermont Wetland Rules require that we  
14 examine the project in the context of cumulative impacts. Specifically, Section  
15 8.5 of the Vermont Wetland Rules states that, "...the potential effect of any  
16 proposed conditional use shall be evaluated on the basis of both its direct and  
17 immediate effects as well as on the basis of any cumulative or on-going effects on  
18 the significant wetland." The Rules reflect the necessity to evaluate cumulative  
19 and ongoing impacts from surrounding development in conjunction with proposed  
20 impacts from the project under review.

21

1   **Q12. Given your review of the Project, do you believe the Project can be designed**  
2           **and constructed in a manner that will result in the issuance of the necessary**  
3           **permit approvals from the Agency?**

4   A12. I believe that if the Project is constructed using the guidelines of avoidance and  
5           minimization of impacts to wetlands, including the avoidance of herbicides and  
6           pesticides for right-of-way management in wetlands and near streams; along with  
7           compensatory mitigation, there should be no undue environmental impact to  
8           wetlands as a result of this project. Therefore, the Agency would be in a position  
9           to issue the necessary permits and approvals if these guidelines are followed. All  
10          this rests on VELCO finishing all the work and providing sufficient detail to the  
11          Agency.

12   **Q13. Does this conclude your testimony at this time?**

13   A13. Yes.

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